

### **REMARKS**

Claims 1-8, 13-14, 16-22, 25-27, 30, 32-37, 39, 41-42, 45-46, and 49 are canceled without prejudice or disclaimer. Withdrawn claims are: 9-12, 15, 23-24, 28-29, 31, 38, 40, 43 - 44, 47-48, and 50-55. New claims 56-98 are provided above.

Thus, the pending claims for further examination are claims 56-98.

Recently on March 30, 2006 an interview was held with the Examiner to discuss the merits of the application. In that interview, the Examiner indicated his willingness to advance prosecution towards allowance claims that: (1) are directed to the overall two stage process, and (2) recite a clarity value to link molding parameters to the advantageous clarity or haze values achieved in the practice of the process parameters of the invention.

In response, Applicants provide new claims, which are fully supported by the specification, which accomplish the helpful suggestions of the examiner. Claim 56, as shown, includes new steps (e) and (f) which recite, respectively, the reheating and blow molding of the preform into a container. Furthermore, values are provided to recite in claim 56 the favorable haze/thickness ratio that is made possible by application of the process molding parameters of the invention. The new claims are fully supported by the specification.

Claims 57-71 incorporate the subject matter of new claim 56, as they depend from claim 56. Claim 72 also provides yet another embodiment of the invention, and contains similar limitations with regard to the second stage of blow molding and clarity

limitations. Dependent claims 73-88 incorporate the limitations by their dependency.

These claims are fully supported by the specification.

Claim 89 is directed to use of one particular type of nucleating agent (a dimethyl dibenzylidene sorbitol compound), which provides advantageous results in one embodiment of the practice of the invention. This claim specifically recites the three molding process parameters as used with this one class of nucleating agent compounds, and therefore does not need to recite any particular haze/thickness ratio. Claims 90-98 depend from claim 89, and contain the limitations of claim 89 as well as additional limitations as shown. All of the newly presented claims are fully supported by the specification of the application.

#### Specification Amendments

As to the specification, minor amendments are made to the units set forth in the Tables to correct or clarify the units that apply to the data set forth in the application. The amendments to the specification do not supply any new matter, and instead, such amendments merely clarify matter already present in the filed application.

Furthermore, amendments to the claims are supported by the specification. For example, claim 56 and 72 each are amended to recite a percent haze/thickness (mils) ratio of less than about 0.4. In the specification, for example, a two stage process of making a container is disclosed, in which a 4 mm preform using a resin of 20 Melt Flow Rate provides a haze/thickness ratio in a blow molded container of less than about 0.4. This data is reported in Table VII, page 46. Thus, the amendments relating to haze/thickness ratio are fully supported by the extensive and detailed data in the

specification, and no new matter has been presented by way of amendment. Likewise,

the other amendments are fully supported by the text and data of the application.

### Obviousness Discussion

The previous Office Action suggests that it would be obvious to combine Sato with Edwards to achieve the invention. Sato and Edwards when combined do not provide a *prima facie* case of obviousness. The combination of Sato/Edwards/Schmidt also does not provide such a *prima facie* case.

Neither Sato nor Edwards specify an injection rate of greater than 5 g/sec, as specified in the invention of this application. Thus, one feature of the invention is completely absent from the teachings of these two references. All of the elements of the invention have not been found in the cited references.

Edwards discloses an extremely thin preform article that is well below the amended sidewall thickness in the above noted claims. Neither Sato nor Edwards disclose a preform having a thickness in the claimed range of the invention, i.e. about 2 mm to about 4 mm. Preform thickness is a feature of the invention that is not disclosed or taught by either Sato or Edwards.

Edwards teaches away from the invention. Dec. para. 19. Edwards teaches using preforms with thickness greater than 0.5 mm in thickness, in which the thickness is carefully controlled to within 5% variance in wall thickness (i.e. only 5% variance from 0.5 mm; see column 2, lines 1-10. Edwards specifically suggests only very thin preform articles which are exactly 0.5 mm (or nearly exactly 0.5 mm, varying only 5% in thickness):

“.... Such as, high density polyethylene and polypropylene may also be used. In that reduction to practice, the average wall thickness of the preform was 0.020 inches [0.5 mm] with less than a 5% variance in wall thickness”.

The combination of Edwards with JP 360125627A is not suggested by any prior art reference. Further, even if one were motivated to make such combination, it would not result in the claimed invention, as neither of these references teach the elements of the invention. Edwards teaches away from any preform thickness greater than 0.5 mm, and there is no teaching that would suggest a four-fold increase in this variable. Further, the other claimed features of the invention are also not taught by this combination. Thus, there exists a complete lack of a *prima facie* case of obviousness, based upon the Edwards JP 360125627A combination.

#### Obviousness Principles:

#### Treatment of Process Variables Under Section 103

The Office Action characterizes the claimed invention as routine experimentation in making a 103 rejection. However, a particular parameter must first be proved to be a “result-effective variable,” i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable are even eligible for characterization as routine experimentation in an Office Action. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)(the “*Antonie*” case).

In the *Antonie* case, the Court *reversed* the Board decision, and thereby ruled to allow the patent claims at issue in that case. Thus, since this case held in favor of the applicant, it cannot be cited in support of the rejection in this instance. The Federal Circuit found that one must look at the invention *as a whole*. Further, one must look at the differences between the prior art and the invention *as a whole*. One may not select

out one feature or variable of the claimed invention in applying a “result effective variable” analysis. When the Office Action does not apply the result effective variable analysis by reviewing the invention as a *whole* ---- it has misinterpreted the law of obviousness. This is the law as stated by *Antonie*.

The Board in *Antonie* observed that some persons may feel (for whatever reason) that it would be “obvious to try” varying each and every parameter of a system to optimize the effectiveness of the system. But, the Federal Circuit reversed the Board in *Antonie*, and discarded this faulty reasoning, saying: “Obvious to try” is not the legal standard of 35 USC Section 103”. *Antonie*, 195 USPQ at 8. Thus, one may not --- under the law of obviousness --- simply reject under Section 103 by claiming that it might be “obvious to try” changing a variable, or that it would be otherwise obvious to vary or optimize a variable, or “fine tune” a process parameter that may be tunable.

The *Antonie* Court found that the “result effective variable” rejection analysis involved mere speculation, and therefore such analysis is suspect. The Court said: “... assuming as the examiner has, that the tank volume is fixed and the natural motivation is to maximize efficiency.....increasing the contractor area to increase “efficiency” will lead away from the claimed ratio.” 195 USPQ at 8, footnote 4.

In *Antonie*, the Examiner indicated that the prior art taught keeping the tank volume constant while increasing the contractor area. Thus, the examiner argued that increasing tank volume to surface area to increase efficiency was taught, and the rejection was based upon the notion that working out a value for optimum efficiency could be mere mechanical experimentation. The Board and the Examiner were

reversed in *Antonie*. This analysis by the Examiner in that instance was rejected as wrong under the law.

There is no stated evidence of express teachings in the present Office Action or in the prior art to show that a person of skill in the art, with knowledge of the cited art, would *somehow recognize that all three variables*, i.e. melt flow index, mold filling rate, and side wall thickness, are interrelated to each other in such a way as to achieve, *in concert*, as specifically claimed, the recognized result of the invention. These parameters, *taken together*, as specifically defined, and viewed *in the context of the invention as a whole* (which is required by the law of *Antonie*), are not result effective variables because one cannot predict the results when all three variables are maintained at the claimed range. The only way to predict such results is to read the patent application set forth here! But, reference to applicant's invention is hindsight analysis. It has been said before that: "All inventions look easy and apparent, once the inventor explains it to you!". That is what has occurred in this instance --- a *hindsight reconstruction* of the invention --- in the Office Action.

It is simply not the case that it would be predictable to maximize efficiency by adopting exactly the claimed ranges of the invention, exactly as stated in the application, when no such statements or suggestions are made in the cited prior art.

#### A Showing of Unexpected Results Defeats Obviousness

In this case, there is not a *prima facie* case of obviousness, as all the elements of the invention have not been located in the prior art. But, even if such a *prima facie*

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case were to be found, applicants may rebut a *prima facie* case of obviousness based

on overlapping ranges by showing the criticality of the claimed range:

"The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant need only show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range" to defeat a finding of obviousness *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP § 716.02 - § 716.02(g).

In this instance, the Applicants have made a firm showing of both: (1) teaching away of the claimed ranges by the prior art; and (2) criticality and/or unexpected results of the claimed range(s). It is requested that the attached Declaration of Inventor Bernard Vermeersch be carefully considered.

Obviousness is defeated when the applicant has completely answered in rebuttal by showing (1) the prior art teaches away from the claimed invention, and (2) there are new and unexpected results relative to the prior art. See, *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1322, 73 USPQ2d 1225, 1228 (Fed. Cir. 2004). Both a teaching away, and newly unexpected results are present in this instance. Obviousness is absent, as shown by the factual evidence submitted to the Patent Office Examiner.

The Examiner's kind attention to this application in the personal interview held on March 30, 2006 is acknowledged with appreciation. It is believed that the above claims 56-98 define over the prior art record and that the application is in complete condition for allowance. Should any issues remain after consideration of this Supplemental Amendment, however, the Examiner is invited and encouraged to telephone the undersigned at his convenience.

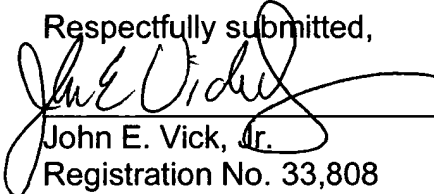


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**Fee Authorization:** In the event that there are additional fees associated with the submission of these papers, Applicant hereby authorizes the Commissioner to withdraw those fees from our Deposit Account No. 04-0500.

**Extension of Time:** In the event that additional time is required to have the papers submitted herewith for the above referenced application to be considered timely, Applicant hereby petitions for any additional time required to make these papers timely and authorization is hereby granted to withdraw any additional fees necessary for this additional time from our Deposit Account No. 04-0500.

Respectfully submitted,  
  
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